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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,479	01/20/2006	Gina R. Shaub	63253A	2124
109	7590	01/28/2008		
The Dow Chemical Company Intellectual Property Section P.O. Box 1967 Midland, MI 48641-1967			EXAMINER LU, C CAIXIA	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 01/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,479	<b>Applicant(s)</b> SHAUB ET AL.	
	<b>Examiner</b> Caixia Lu	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/20/06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: in Comparative A, the procatalyst composition has 5% "isooctane" does not make any sense. Should the term "isooctane" be "isopentane" instead? Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Job (US 5,270,276) and Job et al. (US 5,034,361) respectively.

The instant claims are directed to a process for preparation of a procatalyst hydrocarbon oil dispersion by providing a 7-25% diluent containing partially dried procatalyst, and then disperse the partially dried procatalyst to a hydrocarbon oil.

US'276 teaches a procatalyst preparation process comprising (i) preparing a procatalyst solids, (ii) separating the procatalyst solid from the reaction media by filtration, (iii) after washing the procatalyst solid with isopentane, drying the procatalyst solid for 100 min under moving nitrogen at 40°C, and (iv) mixing the procatalyst with mineral oil to provide a catalyst slurry in mineral oil (col. 8, line 25 to col. 9, line 40).

It is noted that US'276 does not expressly disclose the diluent content after the washed procatalyst solid dried under nitrogen at 40°C. However, the procatalyst is prepared by a process disclosed in US'276 is substantially identical to that of that of the instant application except that the partially dried procatalyst containing 15% of isopentane disclosed in Example 1 of the instant application is obtained by drying under nitrogen at less than 32 °C for one hour. It is also noted that the partially dried procatalyst containing 5% of isopentane disclosed in Comparative A of the instant application is obtained by drying under nitrogen at 46°C for 90 min. Since the drying condition of under moving nitrogen at 40°C for 100 min of US'276 is somewhat in between of the drying conditions of Example 1 and Comparative A, one would have expected the partially dried procatalyst of US'276 to have isopentane content somewhere between 5% to 15% and to inherently meet the particle size limitation of the instant claims as well.

Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden of proof is shifted to the applicant to show an unobvious difference. In re Fitzgerald, 205 USPQ 594. In re Fessmann, 180 USPQ

324. Applicants have not met their burden to demonstrate an unobvious difference between the claimed product and the products of the prior art examples.

Similar rejections are also made over Illustrative Embodiments IX and X in col. 10 of Job et al. (5,034,361).

***Claim Rejections - 35 USC § 103***

1. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Job (US 5,270,276) and Job et al. (US 5,034,361) respectively.

The teaching of Job'276 and Job'361 is relied upon as shown above. It is common sense that the hydrocarbon diluent such as isopentane in the catalyst procatalyst solid should not be removed excessively after washing steps to prevent the formation of hard to break solid chunks which make the formation of a uniformed mineral catalyst slurry difficult, especially considering the hydrocarbon diluent used to wash the procatalyst solid is not harmful to the catalyst mineral slurry at all. On the contrary, those dilute is rather beneficial since it lowers the viscosity of the catalyst slurry and thus make the catalyst slurry easy to handle.

Therefore, it would have been obvious to a skilled artisan at the time the invention was made to employ the procatalyst preparation process of Job'276 and Job'361 respectively to provide partially dried procatalyst with ample diluent in the solid in order to readily provide a catalyst slurry mineral oil and in the absence of any showing of criticality and unexpected results.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.

A handwritten signature in black ink, reading "Caixia Lu". The signature is written in a cursive, flowing style.

Caixia Lu, Ph. D.  
Primary Examiner